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Substance Use among Nurses in Ardabil, Iran

M.A. Mohammadi, B. Dadkhah and N. Mozafari
Faculty of Nursing, Ardabil University of Medical Sciences, Ardabil, Iran

Abstract: The aim of this study was to obtain an estimate of the prevalence of various substance use among nurses in Ardabil, Iran. 460 nurses were assessed by a confidential questionnaire based on DSM-IV. Response rate was 87%. (81.5% were females and 18.5% males). Mean age of the females was 26.13 and of male:28.66. prevalence of use of all substance was 20.3%. (17.8% of females and 31.1% of males). Rates varied by specialty. only 8% of the nurses reported still using substance. About 11.25% of the subjects (10.12% of females and 16.21% of males) reported using of substance occasionally. some used or were using more than one substance. Prescription-type drugs were the most widely used substance (33.8%). Recreation was the main reason for the substance use. Substance use was correlated positively to male gender and positive family history ($p<0.00005$).Certain nursing specialties were more likely than other to be associated with substance use (critical and emergency nursing).Substance use was significantly related to sex: higher among males than female. Prescription-type drugs and cigarette were found to be the most prevalent form of substance use among nurses. There was no report of psychedelics use. These results are, however, different from those studies carried out in the west, although, there is some overlap.

Keywords: Abuse, substance, nurses, Iran

INTRODUCTION

Substance dependence remains a crime in Iran, The number of substance users in Iran estimated to be between 1.8 and 3.3 million and the number of Intravenous drug users between 200000 and 300000. Also, about 74.8% of all those suffering from HIV infection are intravenous drug users(Ahmadi *et al*., 2004). Also, the rate of substance abuse is increased in all of cities in Iran. (Zamani *et al*., 2006) Substance use among health professionals is a problem that threatens professional standards and the delivery of quality services and, if left unchecked, can lead to grave consequences for health care consumers (Alison *et al*., 1998).

Student and nurses, the largest group of health care providers, are immune to developing substance problems, This is no (Ahmadi *et al*., 2004).

Substance abuse is a serious concern in the profession of nursing (Griffith, 1999). Substance abuse by nurses not only affects their own personal and family lives, but also may have serious impacts on the health behavior of the community in general. Due to higher education position of nurses, they are often viewed as examples and any kind of substance use by them may be interpreted as an acceptable and normal behavior. Nurses with substance abuse problems need help. They are in danger of harming patients, the facility reputation, the nursing profession and themselves (Sadeghi and Navidi, 2005).

Dunn reported that the prevalence of substance abuse in the Nurses population is believed to parallel that in the general population (i.e., approximately 10%) (Dunn, 2005)

The American Nurses Association (2003) estimates that 10-20% of Nurses have substance abuse problems and that 6-8% of registered Nurses are impaired due to their abuse of alcohol and other drugs (Griffith,1999).

Limited information is available on the epidemiology of substance dependency in the Iranian population and there have been no extensive studies of substance use among nurses, As nurses are the health personnel who most likely to affect those patients by their behavior and attitudes. Therefore, it is of interest to assess the rate of substance use among them.

MATERIALS AND METHODS

The study population consisted of all the nursing working in the hospitals of Ardabil city. Due to the negative impacts of substance abuse and probable unwillingness of the subjects to report such behavior, random sampling seemed not to be practical, so census sampling was used Instead. A total of 460 nurses was participated in this study.

Corresponding Author: M.A. Mohammadi, Faculty of Nursing, Ardabil University of Medical Sciences, Ardabil, Iran

The design of the study required special consideration because of the sensitivity of same question and the potential concern among nurses about disclosing substance use behavior (Trinkoff and Storr,1997). The questionnaire designed by the researchers based on DSM-IV criteria and a prior study.

The questionnaire Included demographic characteristics (age, sex, marital status of subjects, unit and ….), Nursing specialty, history of lifetime, past year and past 30 days substance use, Frequency of use, the educational level when specific substance were first used, major reasons for using any of the substance, history of previous psychiatric visits, religious beliefs and job satisfaction. Illegal substance were alcohol. Cannabis, cocaine, amphetamines, psychedelics, LSD,, opium, heroin, sedative/hypnotics and tranquilizers. The questionnaire took 15-20 min to completes. Data analysis was carried out using SPSS. After prevalence was calculated, chi-square tests were used to evaluate substance use differences by demographic factors (such as specialty, sex and …) of nurses.

RESULTS

Of the 460 nurses eligible to participate, 400 of them complete the questionnaires (response Rate 87%). Of the 400 nurses, 81.5% were female1 and 18.5% were male.

Most of the nurses were in the 25-35 year range (53%). The mean age of total Nurses was 27.69 (SD=3.44). The mean age for females was 26.13 (SD = 3.15) and 28.66 for males. The majority, were married (67.5 %) and 32.5% were single, separated, divorced, or widowed. The most common specialty was critical care nursing (16.8%), Followed by Emergency (13%). Emergency and critical care nurses were younger (mean age = 26), while those in medical-surgical, genecology, cardiology and administration were much older (mean age = 29 years). About 20.3% of nurses reported having used at least once or more substance use. 8% of the subjects were still dependent on substance and 11.25% reported occasional usage. The prevalence of cigarette smoking was 10.7% and for prescription-type drugs was 33.8%. No history of cocaine, LSD and marijuana using was reported. Recreation was the main reason for use of the substances (34%). Of the respondents 36 and 5% reported the reason for substance use to be tranquilizing fects and dependency to drugs, respectively.

The majority of substance users started their use in general medical training As hypothesized, rates varied greatly by specialty. Critical care nurses orted the highest prevalence for all substance combined (35%) followed by Emergency (29%). Table 1 show prevalence rates for each of the substance in order of the frequency of use.

Table 1: Number of subjects who reported usage of substance at least once or more in their lives

Substance	Used N(%)	Never used N(%)	Test	d.f	Significant
Alcohol			FET	-	<0.00004
F	7(2.2)	319(97.8)			
M	13(17.6)	61(82.4)			
T	20(5)	380(95)			
Opium			FET	-	<0.00008
F	6(2)	320(98)			
M	10(13.5)	64(86.5)			
T	16(4)	384(96)			
Cigarette			X2=39.63	1	<0.00001
F	22(6.7)	304(93.3)			
M	21(28.3)	53(71.7)			
T	43(10.7)	357(89.3)			
Prescription-type drugs			X2=1.17	1	0.34
F	114(35)	212(65)			
M	21(28)	53(72)			
T	135(33.8)	265(66.2)			
Amphetamine			FET	-	<0.0037
F	4(1.2)	322(98.8)			
M	6(8)	68(92)			
T	10(2.5)	390(97.5)			
Heroin					
F	0(0)	326(100)			
M	0(0)	74(100)			
T	0(0)	400(100)			
Morphine			FET	-	0.003
F	0(0)	326(100)			
M	1(1.45)	73(98.6)			
T	1(0.25)	399(99/75)			
LSD					
F	0(0)	326(100)			
M	0(0)	74(100)			
T	0(0)	400(100)			
Cocaine					
F	0(0)	326(100)			
M	0(0)	74(100)			
T	0(0)	400(100)			
Hashish			FET	-	<0.021
F	1(0.3)	325(99.7)			
M	3(4)	71(96)			
T	4(1)	396(99)			

Table 2: Number of subjects who currently reported dependence on substance use

Substance	Dependent N(%)	Non-dependent N(%)	Test	d.f	Significance
Alcohol			FET		<0.0205
F	1(0.3)	325(99.7)			
M	3(4)	70(96)			
T	4(1)	396(99)			
Opium			FET		<0. 089
F	1(0.3)	325(99.7)			
M	2(2.7)	72(97.3)			
T	3(0.75)	397(99.25)			
Cigarette			FET		<0.00001
F	7(2.1)	319(97.9)			
M	11(14.9)	63(85. 1)			
T	18(4.5)	382(95.5)			
Prescription-type drugs			FET		0.5202>
F	16(14.9)	310(95.1)			
M	3(4)	71(96)			
T	19(4.8)	381(95.2)			

Continue Table 2

Substance	Dependent N(%)	Non-dependent N(%)	Test	d.f	Significance
Amphetamine			FET		<0.0892
F	1(0.3)	325(99.7)			
M	2(2.7)	72(97.3)			
T	3(0.75)	397(99.25)			
Hashish			FET		<0.0892
F	1(0.3)	325(99.7)			
M	2(2.7)	72(97.3)			
T	3(0.75)	397(99.25)			
Total			X2 = 5.18	1	<0.0159
F	21(6.4)	305(93.6)			
M	11(14.7)	63(85.3)			
T	32(8)	368(92)			

There was a strong correlation between substance use and family history of substance use ($p = 0.00005$). Single nurses reported more frequent use substance than the married and this difference was statistically significant ($p<0.0005$). There was a negative correlation between history of substance use and religious belief ($p<0.0005$) (Table 2).

DISCUSSION

Use of prescription-type drugs and Nicotine use were found to be the most prevalent of substance use among Iranian nurses, in comparison with alcohol, which was the most widely used substance among western nurses (Alison and Trinkoff, 1998). Medical student in shiraz, Iran and male interns in Tehran university reported a 16.8 and 34.7% history of alcohol use, respectively. There is no statistical data on the prevalence of alcohol use in the general population in Iran. There was no report of L.S.D use. It should be mentioned that, in Iran, it is very difficult to obtain cocaine, LED and other hallucinogens.

In addition, substance use rates varied greatly by specialty. Critical care and emergency nurses were more likely than others to report using substance. It has been suggested that people in emergency or critical care are more likely to have a personality trait known as sensation-seeking, which embraces exposure to crisis situation (Hafner and Proctor 1993). The increased rate of substance use in those, reported in previous studies as well as, may be due to stressful job circumstances, threat of litigation and availability of drugs.

Recreation was the main reason reported for substance use, which is similar to previous studies in Iran, (Sadeghi and navidi, 2005). This study showed that the family history of substance use may be a risk factor for the relatives of such Individuals, where as religious may play a protective role against substance. Substance use was found to be significantly related to sex, with more males than females, suggesting that Iranian culture has a different view of male substance use. This is in contrast with research carried out in the united states showing that life time use did not vary significantly by sex.

There are limitations inherent in this research, the use of retrospective self-reports and the cross-sectional design, that need to be considered in interprating the findings. While the cross-sectional survey prevents us from examining the temporal order of the relationships, the restriction of substance use to the past year should help in this regard, as formation of a specialty affiliation likely takes longer than 1 year. Bias due to recall problems should also be mitigated by the restriction of substance use to the past year. Methodological studies of self-reported substance use suggest that self-report data are valid but underestimate prevalence, owing to the sensitivity of the information (Turner and Lessler, 1992). In our study, same nurses expressed concern that the data could be misused (e.g, they feared employment reprisals) and they may have chosen not to respond despite anonymity. In addition, nurses may have felt more comfortable reporting their use of legal substances. Cigarettes or prescription-type drugs, which imply missus.

CONCLUSION

We found that nurses in Iran exhibited overall rates of substance use similar to those reported in other general population surveys, Although nurses had higher rates of prescription-type, cigarette and opium use, respectively. Pleasurable purpose were found to be the major reason for past and current users.

In addition certain specialties had much higher likelihoods of substance use. This study showed that substance use was significantly related to sex, with more men than women, suggesting that Iranian culture has a different view of male substance use.

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